D-20,396

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 10/014,479   Group Art Unit: 1754

Inventors: H. Kobayashi et al.   Examiner: William Wright

Filed: 12/14/2001

Title: METHOD FOR PRODUCING HYDROGEN

AMENDMENT

Mail Stop Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Please amend paragraphs 32 and 35 of the specification, as set forth in the following section in the format now required by the PTO.

Applicants' remarks in response to the Office Action of August 25, 2003, are in the section that follows the section in which that sets forth the amended paragraphs of the specification.

CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)

I hereby certify that this item of correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, addressed to Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on January 26, 2004.

Signature: _Donald T Black_____

Name of person signing: Donald T. Black
Date of signature: January 26, 2004

AMENDMENTS 1/26/2004 TO PARAGRAPHS 32 AND 35

[0032]   The resulting carbon monoxide containing purge gas is withdrawn from adsorber 10 and forms so called "tail gas" stream 13 and is preferably passed through the second regenerative heat recovery bed 21,optional shift reactor 27 and regenerative heat recovery bed 8 which had been heated as was previously described. Optional feed water stream 23 may be fed to second·regenerative heat recovery bed 21 to generate steam which is then added to and dilutes tail gas stream 13. The passage of stream 25 ~~30~~ through bed 8 causes heat to transfer from bed 8 into stream 25 ~~30~~ resulting in heated carbon monoxide containing tail gas and a cooled regenerative heat recovery bed 8.

[0035]   In order to modulate the temperature of combustion products and also to fully recover the heat stored in regenerative heat recovery bed 8, optional stream 20 which comprises a portion of flue gas stream 19 may be fed into first regenerative heat recovery bed 8 with stream 25 ~~30~~.